Stakeholder Meeting Notes
Sonoma Valley Stormwater Management-Groundwater Recharge Scoping Study
October 20, 2011
The Vintage House
264 First Street East
Sonoma CA

Sponsored by the Basin Advisory Panel, Sonoma Valley Groundwater Management Program

INTRODUCTION AND MEETING OVERVIEW

This document provides a summary of the public meeting held on October 20, 2011 in conjunction with the quarterly meeting of the Basin Advisory Panel, Sonoma Valley Groundwater Management Program. The purpose of the public meeting was to present an update on an ongoing stormwater management-groundwater recharge scoping study being conducted by the Sonoma County Water Agency (Water Agency, SCWA) in the Sonoma Valley watershed. The specific topic of the meeting was the screening and prioritization process for the project, described in the Draft Screening Evaluation and Prioritization Memorandum handout. The Water Agency is seeking stakeholder input on the proposed process and Draft Memorandum.

Presentations and discussions were provided by several members of the project team:

- Kent Gylfe, SCWA Project Manager
- Betty Andrews, ESA PWA, Technical Consultant
- Jenny Sterling, Daniel B Stephens & Associates, Technical Consultant
- Tim Parker, Parker Groundwater, Technical Consultant

Introduction and Workshop Format (Tim Parker, Parker Groundwater)

The members of the consultant team and project team are Kent Gylfe and Marcus Trotta of the Water Agency, with technical support from a consultant team led by Betty Andrews of ESA PWA. Supporting technical team members include Tim Parker (Parker Groundwater); and Jenny Sterling (Daniel B. Stephens and Associates) . The attendees introduced themselves. The meeting was described as a series of presentations followed by a more extensive opportunity for questions, discussion and stakeholder input.

Study Overview (Kent Gylfe, SCWA)

There are three stormwater management/groundwater recharge scoping studies underway in Sonoma County in the following areas: Sonoma Valley, Petaluma Valley and the Santa Rosa Plain (Laguna-Mark West). This is the second stakeholder meeting conducted as part of a scoping study on stormwater management and groundwater recharge in the Sonoma Valley. The scoping study is designed to identify project concepts for further development as tangible projects to help address stormwater management and enhance groundwater recharge in the future.

The Core Project Objectives for the scoping study are:

- Flood hazard reduction
- Groundwater recharge

For any possible project to be considered, it will be required to meetcore project objectives. Supporting project objectives were also developed, which were discussed at the last meeting when comments on the draft document were requested. Copies of the Project Objectives framework are available here today. The project team also developed an Issues Assessment, which was presented at the last meeting as a draft. Both documents are, or will shortly be made available, on the project webpage. The Issues Assessment described flood hazard and groundwater problems in the Sonoma Valley. The groundwater problems include depletion of aquifer storage and localized zones of depression in groundwater levels. Groundwater quality issues, including salinity intrusion, exist in parts of the basin. Flood hazards extend throughout the Sonoma Valley, but are particularly prevalent in the Kenwood area, in the City of Sonoma, and in the Schellville area at the furthest downstream part of the watershed. The Water Agency asked for and received a lot of good and useful comments on the two draft documents at and following the last meeting, and these were used to help develop the final versions of these documents (posted on the project website www.scwa.ca.gov/stormwater-groundwater).

It is the goal of the Water Agency to develop project ideas to a level that will make it possible to seek funding for them from outside sources, such as the IRWMP grants.

Issues and Objectives (Betty Andrews, ESA PWA)
Because a brief introduction had already been made to the issues and objectives in Kent's overview, the prepared presentation for this section was not shown so as to save more time for discussion at the end of the meeting. (See presentation, posted.)

The purpose of the screening and prioritization process is to identify, through a very transparent process, the types and locations of projects that should be developed in the watershed. While some specific project already exist, this process was designed to broadly look at a wide array of possibilities and determine where Water Agency dollars should best be invested to develop a project that meets the dual goals of flood hazard reduction and groundwater recharge. For purposes of this effort, a screening process is used to exclude less suitable types of projects within part or the entire watershed from further consideration. This is followed by a prioritization process to evaluate the remaining types of projects/watershed locations to identify the highest priorities.

Project Types (Jenny Sterling, Daniel B. Stephens & Associates)
There are a wide range of different types of projects that can be used to reduce flood hazards and to enhance groundwater recharge. Some types of projects are compatible with addressing both of these purposes. (See presentation, posted.)

Q&A

Q: What is the evaluation based on? A scale system? Where on the scale do these projects rank?
A: This will be discussed later on, under prioritization.

Q: What is the timeline for the implementation for the opportunities discussed? Are these the first steps?
A: First look at funding opportunities, implementation is further out.

Q: Would new development be required to help slow the flow of water?
A: There will not be requirements for new developments imposed as part of this project.

Q: Is Hooker Creek being considered?
A: We haven't looked specifically at it. The topography of some of its watershed is steeply-sloped, which would require a lot of earth moving.

Q: Was there a limit or boundary on screening out opportunities because of cost?
A: A wide funnel was considered for the screening process, and we did not screen any project type out because of cost. Cost was a factor in the prioritization process.

Project Screening (Jenny Sterling, Daniel B. Stephens & Associates)

The screening and prioritization process is focused on maximizing the accomplishment of core objectives. Some project types that have smaller potential to provide flood hazard reduction and/or groundwater recharge will be set aside in the screening and prioritization process. However, the potential for these types of projects to bring benefits (particularly in terms of community support, funding attractiveness, and accomplishment of supporting objectives) makes them potentially appealing for inclusion in the ultimate project. Therefore, while the scoping study effort will focus on the development of one or more larger-scale projects, at the time a project is being assembled to seek funding, additional types of projects, such as Low Impact Development (LID), ecosystem enhancement, or other smaller-scale project types will be considered for potential inclusion if they would enhance the overall project attractiveness and fundability.

For the purpose of the Scoping Study, project types are being considered that are able to meet both core objectives: reducing flood hazards and enhancing groundwater recharge. While we have acknowledged that an ultimate project could be made up of multiple project elements that address these objectives separately, there are project types can accomplish both. Our screening process separates out project types that only meet one core objective and retains project types that can accomplish both core objectives.

The second screening criteria that we applied assessed the physical feasibility of achieving core objectives with given project types within Sonoma Valley. For flood hazards, we screened out the remaining flood hazard reduction project types for subbasins furthest downstream in the watershed, because they would be of limited effectiveness given the location in the watershed and the influence of San Pablo Bay on flood hazards. Ground slope and the suitability of the geology for recharge were also

used to screen for feasibility. The criteria of ground slope of 10% or less was applied to identify the subarea of the watershed that would make both recharge enhancement and flood hazard reduction projects more likely to be feasible. Finally, out of the portion of Sonoma Valley that remained after the prior screening criteria were applied, areas that were identified as having fair or better potential for recharge enhancement were determined. This screening process produced a smaller number of project types that could be applied in certain subareas of the watershed to meet both objectives. (See presentation and handout, posted.)

Project Prioritization & Next Steps (Betty Andrews, ESA PWA)

A prioritization process was applied to the project types remaining after the screening process. Several prioritization criteria were applied in a stepwise fashion to identify project types/locations that should have a lower priority, producing a final, highest-priority short list of project types in subsets of specific watershed subbasins. In the first step, we reviewed project types by subbasin for the likelihood of significant regulatory constraints, siting feasibility hurdles, and the likelihood of high cost per unit of core objective benefit. In the second step, we examined the relative likelihood of achievement of significant core benefits relative to flood hazard reduction and groundwater recharge. The second step produced a relative priority level for different subsets of the watershed. For the third step, we performed two tests. We first tested the prioritized project locations against the presence of significant water quality concerns, and found none. Lastly, we tested the ability of the remaining solution set of generic project types to accomplish the supporting objectives, and found relatively similar results for each, though off-line basins appear to have the greatest potential. No changes were made to the prioritized project types and locations resulting from the prior steps as a result of step 3.

The final priority list of project concepts included off-line basins in lower-slope, recharge-suitable portions of the following subbasins as identified in Plates 1 and 2 of the Draft Screening Memorandum:

- Sonoma Creek at Lawndale
- Sonoma Creek below Dowdall Creek
- Nathanson Creek at Schell Creek

Flood hazard-reducing high flow diversions around high hazard reaches and through zones with high potential for recharge should also be explored within lower slope portions of the following subbasins:

- Sonoma Creek at Lawndale
- Nathanson Creek at Schell Creek

Lastly, where an infiltration gallery might be more feasible or preferable to a surface facility, it should be explored as an alternative to an off-line basin. The ultimate project should include one or more project concepts with the ability to store at least 100 to 500 acre-feet of stormwater flow.

The current effort will conclude this year or early next year with the generation of general feasibility scoping descriptions and the development of a recommended project implementation strategy. The next phase of effort will begin in early 2012 and will include identification of specific project locations and completion of feasibility studies. (See presentation, posted.)

Q&A and Discussion

Q: Will the PowerPoint presentations be available online?
A: Yes, on Sonoma County Water Agency website: www.scwa.ca.gov/stormwater-groundwater.

Q: Are offline and inline detention ponds both regulated by the State of California? Why do you say in-line basins are subject to greater regulatory constraints and rarely built?
A: The approval process for diversion and storage facilities is challenging, and, in particular, there are problems with approval of in-line basins in the current regulatory climate, especially where native fish are present. Offline detention allow for more opportunities and fewer regulatory constraints.

Q: Questions about flood hazard reduction criteria in lower Sonoma Creek.
A: As far as flood hazard reduction goes, this area is influenced by water levels from the Bay, which creates another source of flood hazards. We are constrained in our ability to affect flood hazards with the project types capable of addressing both core objectives.

Q: What about using levees and floodwalls in the Lower Sonoma Creek watershed? Wouldn't levees and floodwalls help the landowners in that area? Was that considered in the project?
A: We screened out project types that did not address both core objectives, which levees do not. Additionally, salinity intrusion and shallow groundwater levels in that area limit recharge potential.

Q: Question about cumulative impacts. There is not a lot of water in Nathanson Creek. What would be the benefit here?
A: The creek flows through the City of Sonoma. Storage of stormflows upstream of the City in this area could reduce flooding to the City of Sonoma, which has a large population and has flooded in the past, sustaining significant damages.

Q: There appears to not be a lot of overlap for flood hazard reduction priority areas and recharge priority areas. Is that correct?
A: No, actually there is some overlap: the Nathanson Creek subbasin is identified as a high priority area to address both concerns. The western side of the subbasin called Sonoma Creek below Dowdall Creek is a high priority for groundwater recharge, though a lesser priority for flood hazard reduction.

Q: Would an offline basin in the Arroyo Seco at Schell Creek subbasin be a low priority area?
A: Yes, because it would have very limited opportunity to provide flood hazard reduction benefits downstream. They would occur only locally.

Q: Where is this information for people who were not here today?
A: On Sonoma County Water Agency website, www.scwa.ca.gov/stormwater-groundwater.

Q: Are there 3,000 acres of impervious surfaces in the whole Sonoma Valley?
A: We have estimated that there are 3,000 acre feet of impervious surfaces overlaying the area marked in yellow on Plate 2, lands with ground slopes of 10% or less and fair or better potential for recharge.

Q: What is the budget?

A: There is no set budget for the overall project until the project can be better defined. We are striving to develop good projects that will allow us to tap available funding sources.

Q: Many landowners have older water management systems. Would rehabilitation of older systems, perhaps including the removal of tile drainage systems, be considered?
A: Yes, there is no reason that such a project would be inherently inappropriate.

Q: Are septic tanks considered? Many septic tanks are below standard and are near waterways.
A: We looked at contamination and known sources of contamination during our initial screening, but this issue would need to be addressed at the site level, such as during project development or feasibility analysis.

Q: There are many other kinds of projects that would increase pervious surfaces in the watershed as a whole. There are many benefits from other kinds of projects that this large-scale project will not be able to achieve. Will the project be a single facility or a package? What will it look like?
A: We anticipate this may be a multi-part project, including a number of project elements. Project elements must address the core objectives. Ecosystem enhancement and other kinds of projects that might be considered for inclusion would need to be developed, have community support, potentially some funding sources already identified, and potentially address some or all of the supporting objectives. This project would be developed to provide multiple benefits. The project could address the multiple project purposes in different ways.

Q: Is flooding vineyards bad for grapes?
A: It happens routinely along the Russian River. The degree of concern about it depends on the grower.

Q: What are infiltration galleries or underground projects?
A: Essentially, these projects provide storage space underground instead of on the surface. Like a French drain.

Q: This project seems relevant to TMDL (Total Maximum Daily Load) implementation. Would the State Water Board help with funding? At what point should/would the State Water Board be brought in?
A: We are planning to meet with regulatory agencies, including the State Water Resources Control Board as part of the current phase of work, probably holding one meeting for all three different scoping studies that are currently underway.

Q: For storage basins: what will the recharge water sources be?
A: Stormwater. No active injection of water is anticipated; other projects are exploring active recharge and wells.

Q: Will a recharge project be able to address land subsidence, or will recharge be possible in areas where subsidence has occurred?
A: Once the land sinks all the materials are compacted. While recharge can still occur, the lost storage volume cannot be regained, nor can the ground be returned to its former elevation via recharge.

Meeting Wrap Up

Comments on the material presented today and on the Draft Screening Evaluation and Prioritization Memorandum will be accepted through Friday, November 4th. Comments can be relayed to either Kent Gylfe or Betty Andrews, and their contact information is provided at the bottom of the meeting agenda and on the project webpage, www.scwa.ca.gov/stormwater-groundwater. Today's presentations will also be posted to that site, along with meeting notes.

Sonoma Valley Groundwater Management Program

Sign-in Sheet | Thursday, October 20, 2011 2:00–5:00
Basin Advisory Panel and Stormwater Management-Groundwater Recharge Public Meeting

Location: The Vintage House, 264 First Street East, Sonoma

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